a selection transfer member for selectively transferring ozone provided from the at least one ozone transfer unit to the reactor or the exhaust pump,

wherein supply of the reaction gas from the gas supply portion and the ozone from the ozone supply portion to the reactor is controlled such that a thin film is deposited on the wafer at a thickness of an atomic layer by varying inflow duration of the reaction gas or the ozone.

2. (Amended) The semiconductor thin film deposition apparatus of claim 1, wherein the ozone supply portion comprises:

a main valve disposed between the ozone generator and the ozone transfer unit, for controlling flow of the ozone; and

an ozone control unit for allowing a certain amount of ozone to flow to the ozone transfer unit by removing an excessive amount of ozone generated by the ozone generator.

5. (Amended) The semiconductor thin film deposition apparatus of claim 3, wherein the selection transfer member comprises:

a first selection valve connected to a line between the process ozone transfer member and the thermal treatment ozone transfer member and the reactor; and

a second selection valve connected to the line and the exhaust pump.

11. (Amended) The semiconductor thin film deposition apparatus of claim 10, wherein the excessive ozone control unit further comprises a valve member connected between the main valve and the ozone remover, for allowing ozone to flow from the main valve to the ozone remover when ozone pressure determined by an amount of ozone generated by the ozone generator is equal to or greater than a predetermined value.

Please add the following new claims 15 and 16:

15. (New) The semiconductor thin film deposition apparatus of claim 3, wherein the process ozone transfer member transfers ozone at a first flow rate in a thin film deposition process for the wafer, and the thermal treatment ozone transfer member transfers ozone at a second flow rate in a thermal treatment process for the wafer.

16. (New) The semiconductor thin film deposition apparatus of claim 1, wherein inflow of the inert gas into the reactor occurs between inflows of the reaction gas and the ozone into the reactor.